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10/769,164	01/30/2004	James H. Kralick	89190.109203/DP-308949	7762

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EXAMINER

FITZGERALD, JOHN P

ART UNIT PAPER NUMBER

2856

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

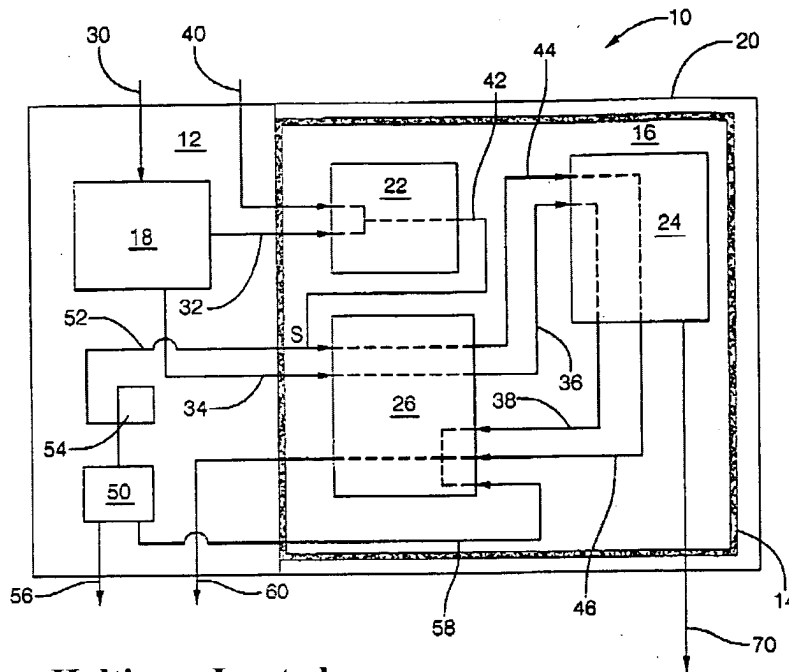
DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 9 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haltiner, Jr. et al. Haltiner, Jr. et al. disclose a system for monitoring the performance of a fuel stack for a fuel cell (see Fig. 1 below) having all of the recited elements including a fuel stack (24), a hydrocarbon reformer (22) for supplying gaseous fuel in the form of continuous reformat to the stack ; a quantitative hydrocarbon sensor (5) (being any sensor (i.e. catalytic, optical, solid oxide electrode, etc.) to measure hydrogen, methane, carbon monoxide, carbon dioxide, water etc. Haltiner, Jr. et al. col. 5, lines 40-55) (as recited in claims 3 and 4) for measuring hydrocarbon content (as recited in claims 1 and 12) wherein the means for providing a sample of reformat output are an equivalent to the means disclosed in the instant specification.



Haltiner, Jr. et al.

FIG. 1

3. Claims 5 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haltiner, Jr. et al. as applied to claim 1 above, and further in view of Walz et al. Haltiner, Jr. et al. disclose a fuel cell and system for monitoring the performance of a hydrocarbon reformer having all of the elements stated previously. However, Haltiner, Jr. et al. do not expressly disclose means for providing air to the sensor nor means for shutting down the fuel cell. Walz et al. disclose a method of monitoring the performance of a fuel stack having most of the recited elements of independent claims 1 and 12 (see Fig. 1 below) having sensors (12, 13, 14) for monitoring the quality of the reformat leaving the reformer (4) before entering the fuel stack/cell (1) wherein air/oxygen is fed on a cathode side of one of the sensors (Walz et al.: col. 3, lines 1-7); and wherein a controller can interrupt the system if the reformat quality is below a standard or switched off/shut-down completely (Walz et al.: col. 2, lines 20-25) (as recited in claim 10). It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to feed air/oxygen to a sensor monitoring the reformat for the purposes of having the sensor simultaneously monitoring the air supply or oxygen supply to the fuel cell arrangement (Walz et al.: col. 3, lines 5-7), as well as shutting down the system of delivering reformat to the fuel cell/stack to prevent damage.

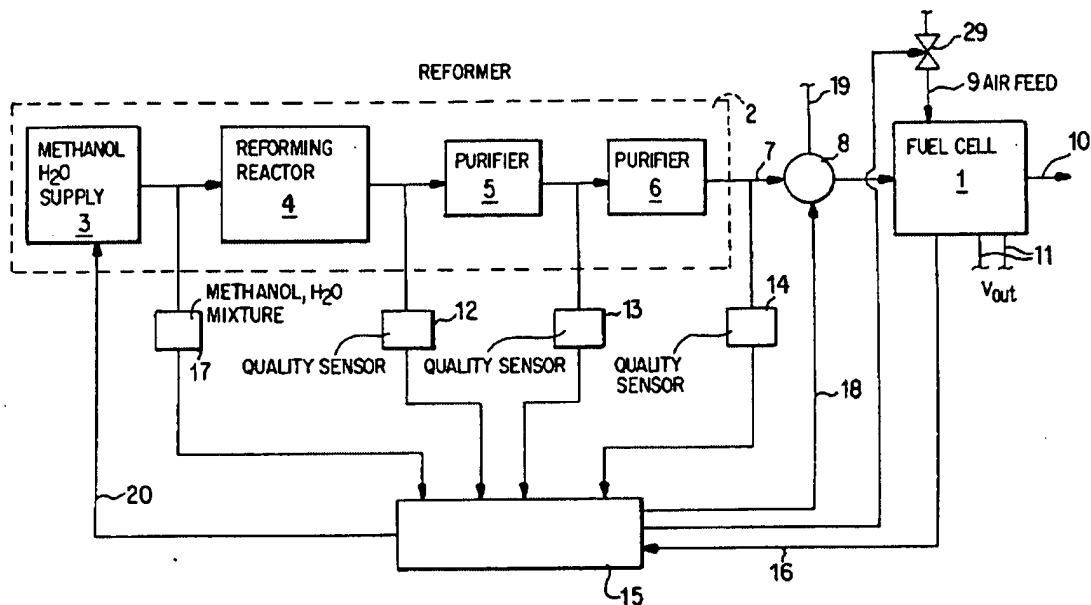


FIG.1 Walz et al.

Allowable Subject Matter

4. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is invited to review PTO form 892 accompanying this Office Action listing Prior Art relevant to the instant invention cited by the Examiner.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JF
02/20/2007



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